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ENGLISH TRANSLATION OF ANNEXES TO THE IPER

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## New clastar Residentiff 06 JAN 2006

- A polyurethane-polymer hybrid dispersion obtainable by
  - a) preparing a dispersion component or binder component based on an aqueous solution or dispersion of an optionally hydroxy- and/or amino-functional polyurethane-polymer hybrid having fluorinated or unfluorinated side chains, where
    - to 100 parts by weight of a laterally a<sub>1</sub>) fluorine-modified, anionically stabilized dispersion polyurethane base (A) having preferably an ideally linearly segmented structure, a polymer-bonded fluorine content of up to 5% by weight, a hydroxyl number and/or amine number of 0 to 250 mg KOH/q, a solids content of 20% to 60% by weight, a solvent content of 0 to 20% by weight, and an average molar mass of 5000 to 100 000 daltons are admixed with 3 to 300 parts by weight of a monomer component (B) consisting of
    - (i) 1 to 100 parts by weight of one or more unsaturated monomers (B)(i) having one free-radically polymerizable more double bonds, selected from the groups acrylic acid and its derivatives methacrylic and/or acid and its derivatives and/or styrene and its derivatives
- 35 and/or
  - (ii) 1 to 100 parts by weight of one or more unsaturated fluorine-modified monomers
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having (B)(ii) one or more freeradically polymerizable double bonds, selected from the groups alkyl (per)fluoro (meth)acrylates and/or (per) fluoroalkyl (meth) acrylates (per) fluoroalkyl (per) fluoro (meth) acrylates and/or reaction products of 1-(1-isocyanato-1-methylethyl)-3-(2propenyl) benzene (m-TMI)and

perfluoroalkyl alcohols

and/or

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(iii) 1 to 100 parts by weight of one or more unsaturated optionally fluorine-modified monomers (B)(iii) having one or more free-radically polymerizable bonds, selected from the group oligomeric polysilsesquipolyhedral (POSS) of the general formula oxanes  $(RSiO_{1.5})_n$  with n = 4, 6, 8, 10, 12 and R = organic radical having 1 to 100 C atoms and 0 to 50 N and/or 0 to 50 O and/or 0 to 50 F and/or 0 to 50 Si and/or 0 to 50 S atoms and a molar mass of 250 to 25 000 daltons,

with 0.01 to 10 parts by weight of initiator component (C), consisting least one lipophilic free-radical initiator having one or more thermally labile azo or peroxo groups, and 0 to 200 parts by weight of water, it being possible for the monomer component (B), the initiator component (C), be and the water to metered simultaneously, successively or in a mixture to the polyurethane base dispersion (A), and subsequently

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a2) in the reaction mixture from stage a1), as a
result of the thermal decomposition of
component (C), carrying out a free-radical
polymerization of component (B) within the
micelles of the polyurethane base dispersion
(A),

and, if desired,

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b) subsequently reacting the dispersion binder component formed from components (A) to (C) from stage  $a_2$ ) with 20 to 100 parts by weight of a crosslinker component (D) (curing 15 agent), use being made as crosslinker component or curing agent (D) of waterdispersible (paint) polyisocyanates aliphatically and/or cycloaliphatically and/or aromatically attached isocyanate 20 groups, it being possible for polyisocyanates to contain 0 to 25% by weight of an organic solvent.